DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A00009WI
Revision 2
Raytheon
3000

February 16, 2000

TYPE CERTIFICATE DATA SHEET NO. A00009WI

This Data Sheet, which is part of Type Certificate No. A00009WI prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Raytheon Aircraft Company
9709 East Central
Wichita, Kansas 67206

I. MODEL 3000 (U. S. Military T-6A) (ACROBATIC CATEGORY) APPROVED JULY 30, 1999 - See note 10 for special information relating to serial number PF-3.

ENGINE: One (1) Pratt and Whitney of Canada, Ltd. of United Technologies Corp. Pratt and Whitney Division PT6A-68 (turboprop).

FUEL: JP-4, JP-5, JP-8, JET-A, JET-A1, JET-B and Pratt and Whitney Service Bulletin No. 18004.

Anti-Icing Additive per MIL-I-85470 is required in concentration of .10% - .15% by volume.

OIL (ENGINE AND GEARBOX): Pratt and Whitney Service Bulletin No. 18001 lists approved brand oils.

ENGINE LIMITS

	Shaft horsepower	N_1 Gas Generator Speed (%)	Prop Shaft Speed (RPM)	Maximum Permissible Turbine Interstage Turbine (Deg. C)
Take Off	1100	104%	2000	820
Maximum Continuous	1100	104%	2000	820
Ground Idle	-	51% min.	-	750
Starting	-	-	-	1000 (5 sec.)
Transient	1447 (20 sec.)	104%	2200	870 (20 sec.)

All other engine limits as noted in engine TCDS E26NE

PROPELLER AND PROPELLER LIMITS

One Hartzell HC-E4A–2 ( ) Hub with E9612 Blades
Diameter: 97 inches.
Pitch Settings at:
Low Pitch Stop 15.1° ± .2°
Feathered 86 ± .5°

Propeller limits as per TCDS P10NE

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AIRSPEED LIMITS (KIAS)

Maximum Operating Speed	316
Maximum Operating Mach No.	0.67
Maximum Flap Extension Speed	147
Landing Gear Extended	147
Maneuvering Speed	236

C.G. RANGE (LANDING GEAR EXTENDED)

Allowable Forward C. G. Up To 5212 Lbs-F. S. 163.8
Allowable Forward C. G. Up To 6200 Lbs-F. S. 164.8
Allowable Forward C. G. Up To 6500 Lbs-F. S. 166.8
Allowable Aft C. G. Up To 6500 Lbs-F. S. 169.4

EMPTY WT.C.G. RANGE

F.S. 163.9 TO F.S. 165.0

MAXIMUM WEIGHT

Ramp	6550 LBS
Takeoff	6500 LBS
Landing	6500 LBS
Zero Fuel	5500 LBS

MINIMUM CREW

One (1) Pilot

NO. OF SEATS AND LOADING

Pilot (F. S. 162.8)
Passenger (F. S. 218.9)

MAXIMUM BAGGAGE

80 Lbs. (F. S. 271.0)

FUEL CAPACITY

TANK	CAP. GAL.	USABLE GAL.	ARM
LH	92.0	90.0	+169.9
RH	92.0	90.0	169.9

See Note 1. for data on unusable and undrainable fuel.

Note: Fuel tanks are interconnected and function as one tank. Fuel is free to flow between tanks. Total usable fuel 90.0 + 90.0 = 180 gallons.

OIL CAPACITY

18 Quarts total at F. S. 89.4
See Note 1. for data on undrainable oil.

MAXIMUM OPERATING ALTITUDE

31,000 feet

CONTROL SURFACE MOVEMENTS

Rudder	Right 24 °	Left 24 °
Rudder Tab	Right 6 °	Left 11 °
Elevators	Up 18 °	Down 16 °
Elevator Trim Tab	Up 5.5 °	Down 22 °
Ailerons	Up 20 °	Down 11°
Aileron Trim	Biased Centering Spring	
Wing Flap	Takeoff 23 °	Landing 50 °
Speedbrake	67.5 °	

SERIAL NOS. ELIGIBLE

PT-4 and after, PF-1 and after (See note 10 for special information relating to serial number PF-3)

DATUM

Firewall Location F.S. 118.1

LEVELING MEANS

Inclinometer on canopy rail measuring -6.00 degrees

CERTIFICATION BASIS

FAR Part 23 effective February 1, 1965 as amended by Amendment 23-1 through 23-47; FAR 23.201, 23.203, 23.207 as amended by Amendment 23-50; FAR Part 34 effective September 10, 1990 as amended by Amendment 34-3 effective February 3, 1999; FAR Part 36 effective December 1, 1969, as amended by Amendment 36-21 effective December 28, 1995; the Noise Control Act of 1972; Exemption No. 6869; and Special Conditions 23-094-SC and 23-98-02-SC.

Equivalent Safety findings have been granted as follows:
23.562; 23.777(d); 23.785(d); 23.807(b)(5); 23.841(b)(6); 23.1305(c)(5); and 23.1549(b).

Application for Type Certificate was dated January 15, 1996. A one (1) year extension of Type Certification date was granted via FAA letter dated January 26, 1999. The Model 3000 Type Certificate was obtained by Raytheon under Delegation Option Procedures under authority of FAR Part 21,Subpart J.

PRODUCTION BASIS

Production Certificate No. PC- 8. Delegation Option Manufacturing No. CE-2. Authorized to issue airworthiness certificates under Delegation Option Procedures of Part 21 of the Federal Aviation Regulations.

EQUIPMENT

The basic required equipment as prescribed in applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. (See Limitations Section of FAA Approved Airplane Flight Manual for Kinds of Operation equipment list.) All pilots and passengers must receive Raytheon Aircraft Company (RAC) approved egress training and wear RAC approved flight apparel per the AFM.

NOTE 1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each airplane at the time of original certification.

(a) Basic empty weight includes unusable fuel of 41.7 lb. at (167.7 in.) with 14.5 lb. being undrainable.

(b) Basic empty weight includes engine oil of 36.35 lb. at (89.4 in.) with 2.55 lb. being undrainable.

NOTE 2. All placards required in the FAA Approved Flight Manual P/N 133-590003-5 must be installed in the appropriate location.

NOTE 3. A mandatory retirement time for all structural components is contained in the FAA Approved Limitations Section, of the Beech Model 3000 Maintenance Manual, P/N 133-590003-7. The limitations may not be changed without FAA engineering approval.

NOTE 4. Inverted flight is limited to fifteen (15) seconds. Intentional zero G is limited to 5 seconds.

NOTE 5. Airplane must be operated in accordance with FAA Approved Airplane Flight Manual P/N 133-590003-5.

NOTE 6. This aircraft contains a canopy fracturing system and ejection seat system that was FAA approved based on the Equivalent Level of Safety provisions on FAR 21.17. Due to the uniqueness of this equipment, corresponding Operational characteristics, and need for recurring maintenance activity, all ejection seat training, maintenance, and component replacement schedules must be conducted in accordance with the FAA approved Airworthiness Limitations Section of RAC Maintenance Manual P/N 133-590003-7.

NOTE 7. This aircraft incorporates design features which install components in the fire zone (forward of the firewall) that normally are not installed in a fire zone (i.e. battery, nose gear actuator, tire, etc.). These components required special tests and/or analysis to insure that no additional hazard was caused when exposed to the effects of an engine fire. Any replacement of non-original components in this area must meet original airworthiness requirements.

NOTE 8. Prior to issuance of a U. S. Standard Airworthiness Certificate, the Model 3000 must be modified in accordance with Raytheon Aircraft Company drawing 133-005001.

NOTE 9. Model 3000 serial number PF-1 and after are defined by drawing 133-000001 for operation by the Canadian Military. To return to an FAA approved configuration, the airplane must be modified in accordance with RAC drawing 133-005001; and AFM supplements 133-590003-49, 1330590003-51, 133-590003-55 and 133-590003-57 are required to be inserted in the AFM (133-590003-5).

NOTE 10. PF-3 is eligible for delivery with restrictions which require changing the FAA approved category from Acrobatic to Normal per RAC Service Instructions T-6A-0001. Airplane Flight Manual Supplement 133-590003-61 is required with this change. These restrictions will be in effect until the airplane is modified per RAC Service Instructions T-6A-0002.

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